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Japanese Archaeology in the 1990s

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As scientific archaeology takes hold in Japan, our understanding of the nature and content of Japanese prehistory is changing radically. All of the period boundaries of Japanese prehistory are being rewritten, and many new "archaeologies" are growing up around particular scientific techniques. New publications in English give greater access to archaeological thinking in Japan, while Japanese publications focus on ever-narrowing aspects of prehistoric lifeways. Policy changes are giving archaeologists more access to the imperial tombs, and rescue teams are under less obligation to "save everything" as selective preservation is instituted.

KEY WORDS: Japanese archaeology; archaeological science; archaeological theory; media; archaeology and politics.

INTRODUCTION

In 1992, Richard Pearson wrote on "The Nature of Japanese Archaeology," covering such topics as the new Fujinoki Tomb discovery (Figs. 1 and 2), the organization of rescue archaeology, archaeology and the public, and intellectual goals and cultural context. Most of his evaluations still stand, but one of his categories has seen major new resources added to facilitate Western knowledge about Japanese archaeology. We now have available a new synthesis in English that provides an overview of recent research in the two major prehistoric periods, the Jomon (12,500–300 B.C.) and Yayoi (300 B.C.–A.D. 300). This is the new book by Professor Keiji Imamura[4] of Tokyo University: *Prehistoric Japan: New Perspectives on Insular East Asia* (1996). Imamura's work speaks for Japanese archaeologists about Japanese archaeology and, as such, is a valuable testament

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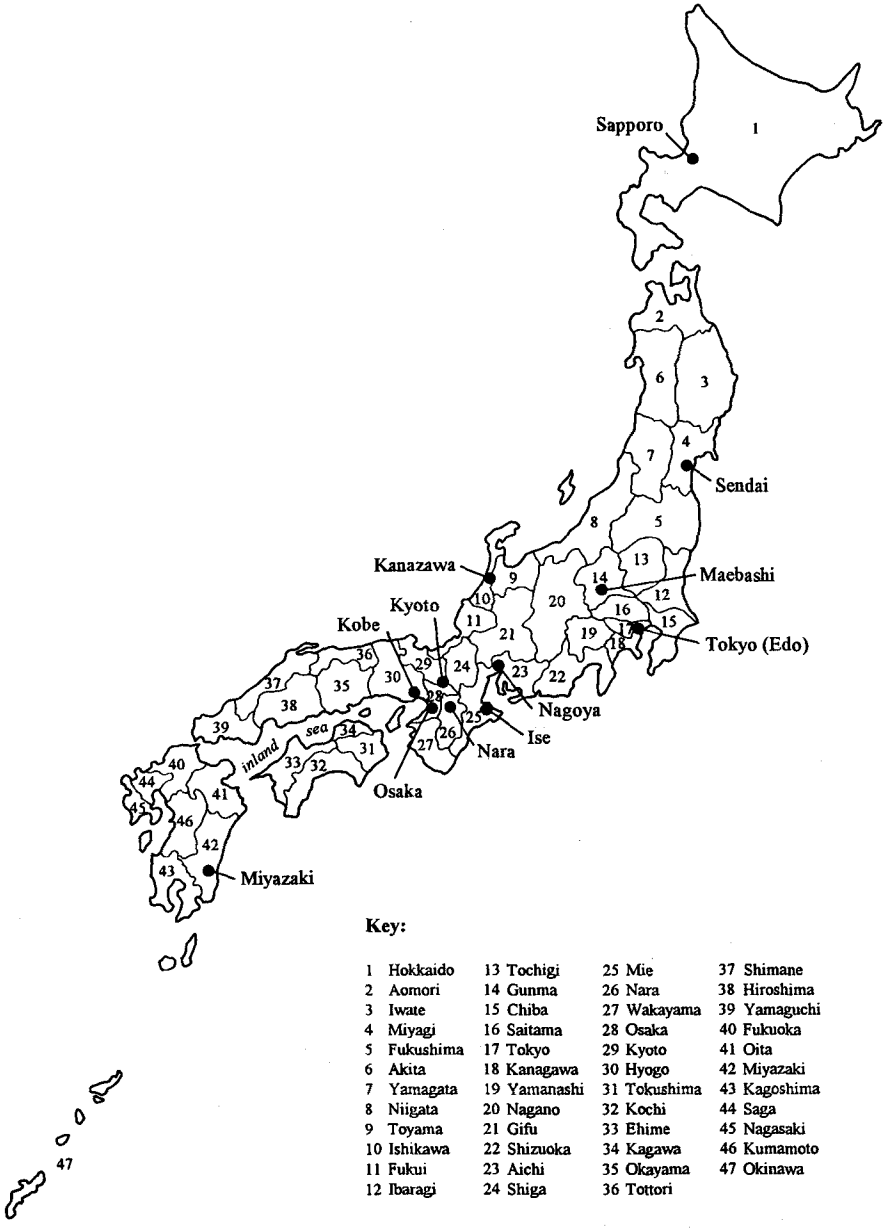


Fig. 1. Map of Japan showing the modern prefectures and the locations of cities mentioned in the text (redrawn by Linda Bosveld).

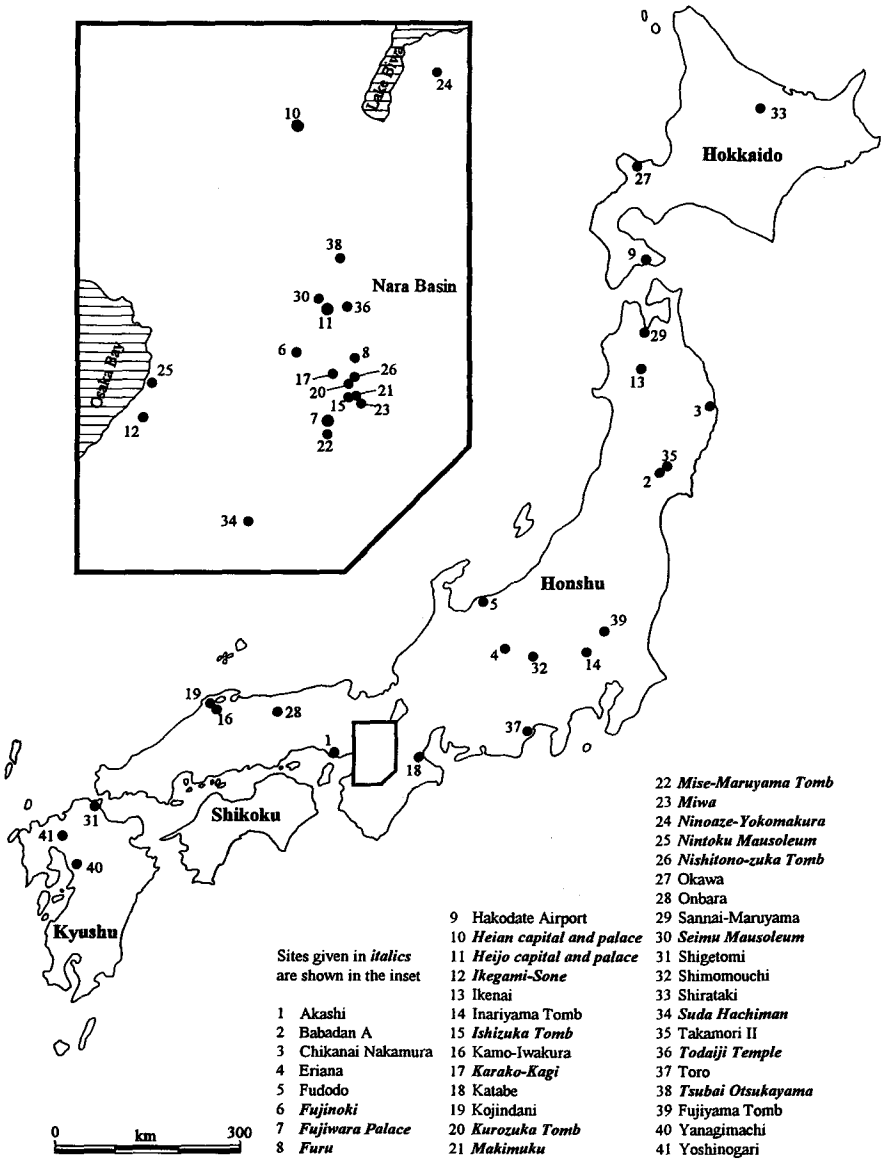


Fig. 2. Map of place names occurring in the text (compiled by Walter Edwards, drawn by Linda Bosveld).

for local views on method and theory. Additionally, Japanese archaeology has been newly contextualized within East Asia as a whole by one of the current authors in *China, Korea and Japan: The Rise of Civilization in East Asia*, by Gina Barnes (1993). Barnes's book is based on her individual Western perspective of East Asia, bringing out issues and relationships not immediately apparent when viewing developments from inside Japanese archaeology. These two works provide new data and contextualization of Japanese prehistory that augment and update but do not entirely replace the older standard works by Kidder (1959, 1972, 1974) and Aikens and Higuchi (1982). Together, they provide background for nonspecialists as well as identify areas of current research progress and controversy.

Without revisiting the topics covered in Pearson's article, which should be read in conjunction with this one, we expand the list of concerns to look at the development of scientific archaeology, revisions in period interpretations and dating methods, policies, and publications. Eight years into the 1990s, it is possible to see the fruit of trends begun in the late 1970s and 1980s that have broadened the discipline in terms of technique, subject matter, and approach. The first is the flowering of archaeological science in Japan.

SCIENTIFIC ARCHAEOLOGY

One radical recent change in Japanese archaeology reflects the local response to evaluations that the discipline in Japan was culture-historical in orientation (e.g., Ikawa-Smith, 1982). Such evaluations were grounded in the New Archaeology of the 1970s, or what is now called "anthropological archaeology" in the United States. However, rather than adopting the theoretical stance of nomothetic-deductive hypothesis testing as practiced by "scientific" New Archaeologists or comparative theory building as seen in anthropological archaeology, many Japanese scholars instead turned to scientific technology for their version of a more rigorous approach to archaeology. This trend was supported by the Japanese government, which had long neglected humanities research funding.

In 1976, the Ministry of Education (Monbusho) funded a 3-year program called in short Kobunkazai (Ancient Cultural Properties), entailing the formation of several interdisciplinary and cross-university research teams to carry out specific research topics. Three annual conferences were held to report the results (Monbusho, 1977, 1978, 1979); after a year's break, a second round of 3-year projects was held in 1980, 1981, and 1982 (Kobunkazai Editorial Committee, 1984).

The Monbusho project spawned a new academic association—the Nihon Bunkazai Kagakukai (Japanese Cultural Properties Scientific Society)—which adopted a constitution in 1977 and took over *Kokogaku to Shizen Kagaku* (Archaeology and Natural Science, ISSN 0288-5964) as the society journal in 1985. Their thrice-yearly newsletter has recently been pared to a biannual, but the society's

800+ members ensure a full annual conference slate that includes multitudes of papers on such topics as dating techniques, palaeoenvironment, raw materials and techniques, sourcing studies, conservation sciences, etc.

Although one might think that science is an international language, the detailed work being done in Japan is accessible to very few outsiders because the society itself publishes entirely in Japanese, even though some members publish independently in English (Koike and Chisholm, 1991). Moreover, since the bulk of the scientific work in Japanese is rarely put in the context of a stated problem, mere translation of the published research reports would not necessarily give the outsider a clue to the significance of the findings. Two problems are inherent here: the lesser problem is that the studies might relate to a certain problem or line of investigation in Japanese research circles, but the publications of results do not specify these and thus limit their usefulness for those outside the implicit discussions. A greater problem is that many scientific archaeological analyses in Japan are trivialized, in the current authors' opinion, by lack of an informative framework that makes certain questions relevant to larger problems. Methodological sophistication cannot make up for the lack of a problem-oriented framework in which analyses are carried out.

Nevertheless, strides are being made in certain areas of enquiry; Imamura has incorporated some of the scientifc analytical results in his new book. He presents the findings of an isotope analysis indicating that during the Jomon period "fish and sea mammals occupied a high proportion of the local diet in coastal areas, with the ratio increasing in northern areas" (1996, p. 88) or that fatty acid and sterols analysis have revealed that Early Jomon "cookies" were variously made from chestnut and walnut flour, meat and blood of wild boar and deer, and wild bird eggs (1996, p. 99).

Another series of "scientific" research projects growing out of the Monbusho funding is the program supported at the Nara National Institute of Cultural Properties (Nabunken) in Nara city. There, the Centre for Archaeological Operations (CAO, or Maibun for short) established several projects to develop specific techniques, such as photogrammetry, balloon photography, etc., among which dendrochronology (see below) and geophysical survey have been especially successful. Yasushi Nishimura has developed resistivity and magnetometer survey methods, with international joint investigations at the Miwa site, directed by the current authors, being among the earliest applications of these techniques (Nishimura and Shell, 1993).

In contrast to the Japanese Cultural Properties Scientific Research Society (JCPSRS), the national research institutes are much more internationally oriented. In March every year, one archaeologist with an international reputation is invited to Nabunken to give a lecture, and many of the CAO staff now regularly develop joint research projects abroad. For example, Masaaki Sawada of CAO ran a 4-year project on "Study on the Analysis and Conservation of Archaeological Materials in Japan and Korea" between 1990 and 1994, and Nishimura has surveyed

on the Bunkacho–Cambodia project and with the Field Unit of the University of Birmingham at the Roman town of Wroxeter in England. Both Nabunken and Tobunken (Tokyo National Cultural Properties Research Institute) are integrally involved in the Bunkacho–Smithsonian Institution project operated through the Japanese Agency for Cultural Affairs and the Smithsonian Institution. Under the project's first program (1990–1992), entitled "Collaborative Research on Conservation and Technical Studies on Far Eastern Bronze and Ceramics," bronze formed the main focus for the development of object databases, lead isotope ratio analysis, and conservation. The next program [1992–1996 (Nishimura, 1992)], entitled "Development of Advanced Archaeological Prospecting Methods" and funded by Monbusho at the rate of 1 million U.S. dollars per year, has resulted in new instrumentation such as Chirp compression radar, FM-CW (continuous wave) radar, and the 3-D magnetometer (Nabunken, 1993–1996). In June 1997, Migaku Tanaka became head of the project and the Site Survey Society (Iseki Tansa Gakkai) was established. As the finishing touch on this research program, Japan recently hosted the 2nd International Conference on Archaeological Prospection in Ise (September 9–11, 1997). For the long term, Ishikawa prefecture has developed a joint laboratory with the University of Miami Geo Acoustic Lab, represented in Japan by Dean Goodman (Goodman and Nishimura, 1993).

Bioarchaeology

Begun by Gary Crawford (University of Toronto) and M. Yoshizaki in Sapporo (University of Hokkaido) in the late 1980s, the Seed Project focused on flotation of plant remains from excavation soils; results are published in a newsletter called *Project Seeds News*. Crawford's work has been confined to sites on the island of Hokkaido, but his protégée, Cathy D'Andrea (Simon Fraser University), extended flotation activities to the Tohoku region, northeastern Honshu Island. Their work has introduced not only the methodology of flotation to Japan but also academic research on agricultural history, crop systematics and evolution, anthropogenesis, seasonality and scheduling, ethnobotanical concerns, and hunter-gatherer and agriculturalist interaction. The latter has yielded a revolutionary view of the agricultural history of Japan's northern inhabitants from the Jomon to the Ainu (Crawford and Takamiya, 1990; Crawford and Yoshizaki, 1987; D'Andrea *et al.*, 1995). Whereas the Ainu have gained a reputation, due to faulty ethnographic interviewing of surviving Ainu individuals (see Watanabe, 1973), for being the hunter-gatherer descendants of the northern Jomon, the Seed Project work shows them to have developed from an agricultural base from the Epi-Jomon through Satsumon periods in constant contact with the historic Japanese.

Although flotation is now fairly common on Japanese excavations, few academic programs are available to train students in the archaeological problems of palaeobotany. This is partly because specializations such as ethnobotany and

zooarchaeology are not considered part of archaeology. Matsui Akira, a CAO member of Nabunken, is now commuting to teach faunal analysis at Kyoto University and has several graduate students. It is significant that his employer is the Department of Human Sciences, not the Department of Archaeology. Aoi Hosoya (1993, p. 12) has written a polemic piece on the position of the palaeobotanist in Japan, noting that "It seems that most Japanese archaeologists think interpretation is not needed for botanical remains because they are definite 'facts.'" It is significant that she has had to go abroad for training in palaeobotanical method and theory due to the lack of adequate programs of study in Japan. And yet, as Crawford has stated, "Superb work goes on in the north" (personal communication, 1998), attested by the results of the Seed Project within the realm of rescue excavation (cf. Nomura, 1993; Yoshizaki, 1995).

Specialist Labs

Another development in scientific archaeology is the establishment of specialist commercial labs that undertake commissions in dating and substance analysis. The Paleoenvironment Research Institute is one such lab, with five branch offices throughout Japan. It grew out of the research of Hiroshi Fujiwara of Miyazaki University's Faculty of Agriculture. As the pioneer of phytolith identification (Fujiwara, 1993), particularly in conjunction with investigations of the adoption of rice agriculture in Yayoi-period Japan, Fujiwara was soon overwhelmed with requests to carry out phytolith analyses for other researchers. He himself has moved on to researching rice origins in the Yangtze basin of China, while his former student Shinji Sugiyama began commercial operations for phytolith identification in Japan. Sugiyama, a pioneering specialist of bamboo phytoliths, is now the head of the Miyazaki branch of the Paleoenvironment Research Institute, while colleague Tsutomu Soda, a tephrochronologist, runs the Maebashi office in Gunma. A third office in Nara incorporates a unique collaboration between a husband-and-wife team in Tenri—Masaaki Kanehara, a pollen analyst, and Masako Kanehara, a parasitologist—together with Akira Matsui at Nabunken, who developed "toilet archaeology." Their collaboration allows analytical techniques for elucidating palaeopathology in historic populations; these are now incorporated in the commissioned offerings of the Palaeoenvironment Research Institute.

Toilet Archaeology

The oldest "toilet" in Japan (Fig. 3), dating to the late 7th century, was discovered in January 1992 at the Fujiwara Palace site in Nara (Matsui, 1992a,b). Interestingly, it was filled with black mud and *mokkan*, inked wooden tablets used to record various transactions in the bureaucratic Nara state! Flotation by Matsui yielded seeds of melon, aubergine, wild grapes, and hemp as well as the

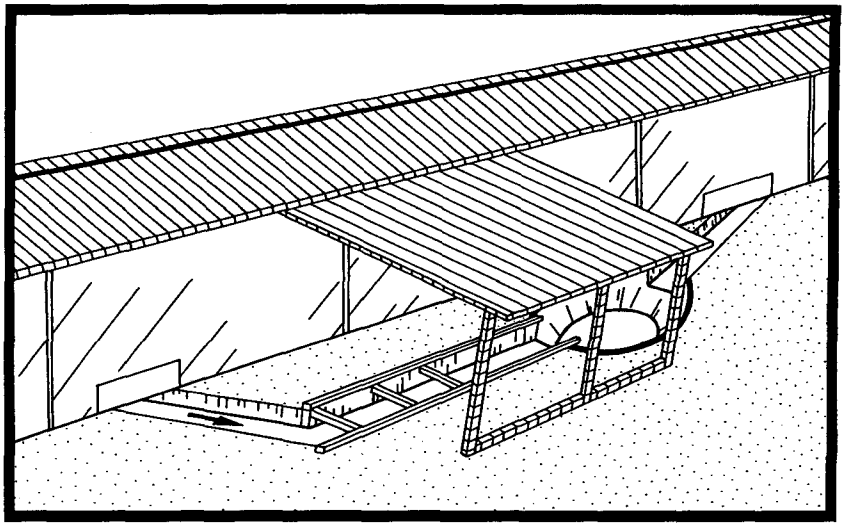


Fig. 3. Discovery of the open sewage toilet at Heijo gives a new reading to the ancient poem, "The fragrant capital of Nara ..." (redrawn by Linda Bosveld, after Matsui, 1992b). Arrow indicates direction of water flow.

pupa carcasses of flies, carapaces of excrement beetles, and herring bones; pollen analysis by the Kaneharas revealed parasite eggs included with the pollen grains on the prepared slides. Since then, archived pollen slides from past excavations have been examined, each of them revealing on average three parasite eggs—few in comparison to "toilet" soils, which are now recognized to produce over 5000 eggs per cm^3 (Matsui, 1992b). The path is now open for investigation of stomach and intestinal illnesses of each period's population to complement what is known from historical documents about major plagues and epidemics (Farris, 1985).

Earthquake Archaeology

In the wake of the devastating Kobe quake of January 1995, a new subdiscipline of scientific archaeology has arisen in Japan, deriving first from studies of ground surfaces at sites in and around the Kobe area. According to research by Akira Sangawa of the Ministry of International Trade and Industry Regional Geology Center, peculiar cracking of the earth and filling with sand (the end result looking much like "stretch marks") seems common during earthquakes. The analysis of archaeological sites for ground patterns like this, as linked to the historical records of earthquakes, may elucidate the history of such disasters and their effects on human settlement in the distant past. This research also may

yield an independent means of dating sites to before or after historically known quakes.

A serious concern in the aftermath of the Kobe earthquake was damage sustained by cultural properties in the region, as far away as Kyoto and Nara. The JCPSRS responded by contributing staff and resources for 35 preconstruction surveys, moving from unstable buildings 29 Buddhist statues, 53 boxes of manuscripts, 40 boxes of photographs, 20 boxes of ethnographic materials, and 235 museum objects. The Buried Cultural Properties Research Group (Maizo Bunkazai Kenkyukai) and the Japanese Archaeologists Association (JAA) are, respectively, collecting data on earthquake disasters and designating earthquakes and cultural properties as a research theme. Submissions are actively being sought by the research head within the JAA, Genzo Ito, and a manual is being prepared. At the least, information is sought from museums, research institutes, and universities on methods they are developing to minimize earthquake damage, on what type of damage they sustained, and on what forms of organizational augmentation were necessary after the earthquake. In this same vein, an international symposium was mounted by Tokyo University of the Arts (Tokyo Geijutsu Daigaku), January 19–25, 1997, to formulate policies to "protect cultural properties from disasters," both natural and human-made.

ADVANCES IN DATING METHODS

Dendrochronology

The person in charge of developing Japanese dendrochronology at Nabunken is Takumi Mitsutani (Mitsutani and Tanaka, 1992), who began by testing several species of trees for their suitability. Japanese cypress (*hinoki*) was determined the best, and a sequence of cypress tree-ring records has been built up using historical and archaeological materials. The *hinoki* sequence now dates back to 912 B.C., and there is a floating chronology of about 300 years prior to that. Another sequence on Japanese cedar (*sugi*) reaches back to 1313 B.C. without a gap (Mitsutani, personal communication, 1998). The significance of the tree-ring data is overwhelming to Japanese archaeology since it has generally been believed that radiocarbon dating is too coarse for archaeological use. For example, despite the traditional dating of Middle Yayoi (Yayoi III–IV ceramic styles in the Kinai region) to 100 B.C.–A.D. 100, Yayoi IV sherds were tree-ring dated by association to the 1st century B.C. at the Ninoaze–Yokomakura site in Shiga prefecture in 1995. At the Ikegami–Sone site in Osaka prefecture in 1996, Yayoi IV sherds were found in the postholes of a large building; one post, with bark intact, was tree ring dated to 52 B.C., so it seems reasonable to date the building to 52 B.C. or slightly later but not "before." Thus, the date for Kinai Yayoi IV has been pushed back at least 50 years, if not close to 100 years.

Tephra Dating

Tephrochronology has become a key dating method in Japan because of the numerous active volcanoes in the island chain and on the nearby continent that have laid down key tephra strata over broad areas at various times in the past. The matching of tephra layers between sites gives relative time control; the dating of the ash itself gives absolute time scales of deposition. Tephra is currently dated by radiocarbon using accelerator mass spectrometry (AMS) at Nagoya University, by liquid scintillation counting at Tohoku University, Kyoto Sangyo University, the Geological Survey of Japan, and elsewhere, and by gas proportional counting at Gakkushuin University, among others. Other tephra dating methods include fission track at Rikkyo and Hokkaido Universities and at a specialist dating company, the Kyoto Fission Track Co. Ltd.; thermoluminescence (TL), carried out by Nara Educational University and Niigata University; optically stimulated luminescence (OSL) at Nara Educational University; electron spin resonance (ESR) at Osaka University and the Geological Survey of Japan; potassium–argon dating (K–Ar) at Okayama Rika, Yamagata, and Chiba Universities; and uranium dating (U-series) at Kanazawa University. It is clear from this list that universities in Japan have tended to operate their own labs and have chosen to specialize in specific dating techniques. One notable absence from this list is argon dating (Ar–Ar), impossible in Japan because of the limitations on radioactive pollution enforced by the Japanese government.

REWRITING PREHISTORY

Our knowledge of the progression of Japanese prehistory is organized within an arbitrary divisioning of this time span into specific periods—arbitrary because the criteria used for dividing the periods are negotiable in terms of academic significance and because the criteria themselves shift between periods (Table I). In brief, the sequence begins with the usual world definition of the Palaeolithic, confined to the Pleistocene—itself arbitrarily determined to end at 10,000 years ago

Table I. Standard Dates and New Data for Period Beginnings in Japanese Archaeology

	Standard dates	New data
Palaeolithic	190,000–12,500 B.P.	Lithics between tephra layers dated, respectively, to 300,000 and 600,000 years ago
Jomon	12,500 B.P.–300 B.C.	Early pottery fragments now dated to ca. 15,000 B.P.
Yayoi	300 B.C.–A.D. 300	Introduction of paddy field technology in early 1st millennium B.C.
Kofun	A.D. 300–710	Mounded tomb construction potentially pushed back to mid-3rd century A.D.

(8000 B.C.). However, long before the end of Palaeolithic lifestyles, we have evidence of the beginning of pottery use in Japan. This is currently used to define the beginning of the Jomon period ranging from 12,500 to 300 B.C.—a postglacial period of considerable regional and temporal variability but consolidated by a textured pottery tradition and the appearance of polished stone tools. Although these two artifact types often are used to describe the Jomon as "neolithic," the period was not agricultural in nature, being heavily dependent on hunting, gathering, and fishing, with some evidence for horticulture and the introduction of rice agriculture toward the end of the period. The succeeding Yayoi period has traditionally been identified with the appearance of Yayoi-style pottery at 300 B.C., but the importance of rice to the Yayoi has prompted some to opt for an agricultural definition of Yayoi beginnings. The Yayoi period is determined to have ended with the appearance of mounded-tomb building, traditionally dated to the early 4th century B.C., which heralded the Kofun period of state formation. The archaeological definition of the Kofun period ends at A.D. 710, with the demise of tomb building in favor of temple building. The specific date chosen coincides with the move of the Yamato Court from the first Chinese-style capital at Fujiwara in Asuka to the new Heijo capital built at Nara, both in present-day Nara prefecture. As we shall see below, the dates between these period transitions have almost all been renegotiated during the last decade. The finds contributing to these new dates are discussed, along with other significant discoveries that change our perceptions of the natures of these periods. A seminal contribution was the 1985 symposium of the Kokogaku Kenkyukai, where specialist papers focused on the transitions between periods (see Society of Archaeological Studies, 1986). There is not yet a consensus for new period dates that can be published to replace the old standards, but readers should be aware of the controversies surrounding the definitions of the periods of Japanese prehistory and be able to incorporate new contradictory data within the framework of the old standards without too much confusion.

Palaeolithic Concerns

The beginning of the Palaeolithic period in Japan has been continuously controversial. Over the past 20 years, the earliest date has been pushed back from 30,000–50,000 years before present (ybp) in the 1970s (Ikawa-Smith, 1978) to 190,000 ybp in the 1980s on the basis of the Babadan A site (Tohoku, 1986–1989) and others around Sendai city in the north; the earliest date now stands at ca. 500,000 ybp, with the discovery of the Takamori II site (Sekki Bunka Danwakai, 1991, 1993). Unlike the initial estimates, which were based on radiocarbon and pushed the technique to its limits, the recent determinations by the Sekki Bunka Danwakai (Stone-tool Culture Discussion Group) have been made with a suite of dating techniques all generally conforming to each other. Tephra 1, which overlies the tool layer at Takamori II, was dated to 430,000–610,000 ybp by ESR and to

460,000–490,000 by palaeomagnetism; Tephra 5, directly above 1, was dated by TL at 380,000–520,000. Materials for ESR were not very suitable at Takamori II. Although the ESR dates for five strata were consistently older the deeper they were buried, a difference of 10,000 was noted between ESR (older) and TL (newer) datings of the strata.

The lithics at Takamori, estimated at ca. 500,000 ybp, are mainly small flakes (ca. 3 cm) of chalcedony and jasper—worked bifacially into knives and scrapers—and a few larger picks and axes (ca. 8 cm) made of coarser crystalline tuff and shale. These attributes, together with the irregular striking platforms and working edges on the tools, are also common to the Zhoukoudian 1 assemblages in China between 200,000 and 500,000 ybp. The makers of the Zhoukoudian tools are known through fossil finds to have been *Homo erectus*, but no fossils of ancient hominids have yet been found in Japan.

Some archaeologists assume the date of the Takamori II site indicates *Homo erectus* occupation of the mountainous edge of Palaeolithic East Asialand (now the Japanese Islands). However, this line of thinking is clearly being suppressed by the lack of fossil finds (Kajiwara, 1997), despite the fact that the problem of *Homo* genus evolution has been taken up theoretically by internationally oriented scholars. Between 1989 and 1992, Takeru Akazawa, then at the University of Tokyo Museum, mounted the Monbusho-funded "Mongoloid Project," involving 43 institutions and 85 specialists; a journal, *Mongoroido* [*Prehistoric Mongoloid Dispersals*], was produced and a series of international symposia was held (Akazawa, 1990, 1992; Akazawa *et al.*, 1992). The conferences focused on recent DNA findings and the impact of the Eve hypothesis on interpretations of population change in the East (papers listed in *EAANnouncements*, 1990, 1993).

The Palaeolithic of Japan has seen substantive as well as chronological revisions. Excavations at the Onbara site in Okayama by Takashi Inada (1996) produced Yubetsu-type microblade materials, which had hitherto been known only in northeastern Japan. Their recovery from western Honshu indicates long-distance trade or communications in the Late Palaeolithic beyond simply the supply catchment for the major obsidian sources. For a period once known only by its stone tools and lithic technologies, the Japanese Palaeolithic now has over 60 settlement and activity sites to its name. Imamura notes that 13 Late Palaeolithic pit-traps were discovered in Shizuoka prefecture in 1990 (1996, p. 86), while traces of surface dwellings, rather than the pit dwellings known in the subsequent Jomon period, have been found at many Late Palaeolithic sites (Simon Kaner, 1990).

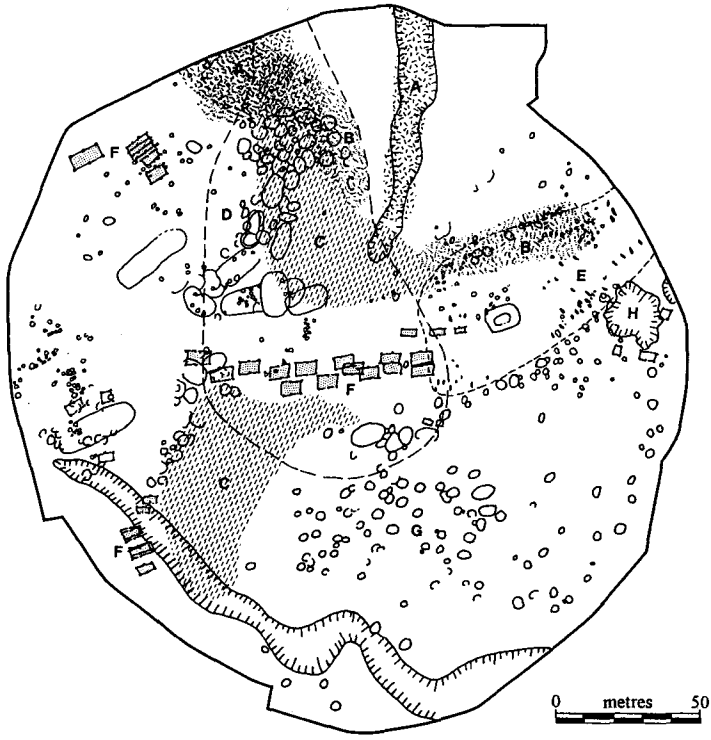
Jomon Village Excavations

The Jomon period is one of the world's outstanding examples of temperate hunter-gatherers who led a sedentary life with elaborate ceramic production (Renouf, 1984; Rowley-Conwy, 1984). Evidence of substantial village formation

consisting of pit house occupation is prolific from the Early Jomon (5000–3000 B.C.) onward. Such villages often are associated with shell middens and can consist of hundreds of houses (not occupied simultaneously) organized around a circular plaza. In the early 1990s, two sites were excavated in northern Japan that add to this extraordinary village data and provide new data on social organization. Between 1991 and 1994, a large Early Jomon site was discovered during the construction of Hakodate Airport in Hokkaido: 562 pit buildings constructed over a 500-year span were uncovered within a 150-ha area (*Asahi Shinbun*, 1995). At the Sannai Maruyama site in Aomori prefecture, huge pillars were discovered embedded to a depth of 2.8 m in pits 2.2 m across within an undisturbed Jomon village.

The Sannai Maruyama site extends over 35 ha, was occupied for 1500 years between Early and Middle Jomon, and has survived virtually intact with no later occupational layers. Five hectares has been excavated (Fig. 4), revealing over 100 large features with pillars of 1-m diameter, hundreds of burial pits arranged in rows over 300 m long, 700 ceramic figurines, and tens of thousands of sherds. The labor and resources invested in this site were comparable to its prehistoric population: more than 600 archaeologists participated in the excavation, and the site has been set aside as a complete example of a Jomon village. Jomon scholars are now involved in interpreting the sets of large pillars. Some analogies have been made to totem poles, others to large architectural structures. Although large buildings with enormous pillar structures have previously been excavated in the Hokuriku region of long winters, for example, at Fudodo (Toyama Prefecture, 1982), those buildings have been interpreted as communal winter workshops and not equated with a hierarchically organized society.

These excavations in northern Japan, where Jomon settlement was most dense but the modern population is thin, may help rewrite Jomon prehistory. The period is already recognized as a time of "affluent" hunter-gatherers (cf. Koyama and Thomas, 1981), and since the early 1980s there have been efforts to identify chiefdom formation and social differentiation within Jomon society (e.g., Kosugi, 1991). Extensive ritual behavior has been documented, from the use of figurines, masks, and phallic stones in community rituals to the construction of large cemeteries in well-defined spaces such as the stone circles and *kanjo-dori* (Ikawa-Smith, 1992). But some of this ritual elaboration of late Jomon society has been attributed to the need to maintain and reinforce Jomon identity against intrusive rice agriculturalists (Kobayashi, 1992), and no gradations of wealth in individual burials have been recovered to provide evidence of evolving social stratification. Thus, despite having an extremely active ceremonial aspect, Jomon society has yet to be proved to have spawned a truly hierarchical social system. Sannai Maruyama, because of its completeness and unusual set of features, should give us a different view of Jomon society; but it, nevertheless, cannot be taken as representative of the Jomon in general and, at most, shows a local social florescence from a richly endowed subsistence base.



Key:

A	Early-Middle Jomon discarded artifacts
B	Middle Jomon buried ceramics
C	Middle Jomon discarded artifacts
D	Early Jomon pit-building cluster
E	Middle Jomon pit-burial cluster
F	Middle Jomon pillared building cluster
	unphased pillared buildings
G	Middle Jomon pit-building cluster
H	Middle Jomon clay quarries
	gully

Fig. 4. The plan of the excavated Sannai Maruyama site (redrawn by Gina Barnes, after *Weekly Asahigraph*, 1994).

With these questions, research on the Jomon period has been carried far beyond its initial focus on ceramic chronology, but the origin of Jomon pottery is still a debatable issue. In 1988–1989, the Shimomouchi site in Nagano prefecture was excavated (Nagano, 1992), yielding "pot-sherd-like material" 3 cm in diameter and 3–4 mm thick. It is not clear if the material belonged to a ceramic container or if it is just fired clay (at ca. 500°C). The tephra layer in which the material was found dates to 13,000–14,000 ybp by TL and ca. 16,000 ybp by ^{14}C, thus making it the earliest Jomon pottery yet found in Japan—if that is indeed what it is—by two millennia or so.

The earliest confirmed Jomon ceramics accompany the Late Palaeolithic microblade and bifacial spearpoint industries; these three elements represent a shift in material technology in the Late Palaeolithic that does not seem to be related to environmental and subsistence change. The ever earlier dates of ceramics in Japan bring into question both the definition of the Late Palaeolithic/Jomon divide and the relationship of the ceramic tradition, which currently stands as the earliest in the world, to other early traditions on the China mainland and in the Russian Far East. Currently, several projects are being conducted in the Russian maritime provinces to illuminate these questions. For example, new application of OSL dating to Ustinovka-3 site sediments is being conducted at Nara Educational University (T. Soda, personal communication, 1998), while a Fareastern Archaeological Fieldschool (FAF) has been established between Fareastern University (Vladivostock) and the University of Wyoming to investigate Palaeolithic to Bronze Age sites in the eastern coastal zone (Zerkal'naya River valley) (A. Tabarev, personal communication, 1998).

Yayoi Updates

Imamura (1996, pp. 134–135) presents a fairly clear description of the nature of the overlap between Jomon and Yayoi pottery types as related to the introduction of rice agriculture. The Final Jomon Yamanotera and Yu'usu pottery types are now considered by some as belonging to the "Initial Yayoi" period because of their coexistence with incipient Yayoi-shape types (Imamura, 1996, Fig. 10.6). These are the earliest Jomon types to accompany paddy field remains and therefore indicate the introduction of agriculture in the last phases of the Final Jomon period. The typical Yayoi Ongagawa-type pottery appears in the subsequent phase, Itasuke I, assigned to the Early Yayoi period. The transitional phase characterized by Jomon pottery but assigned a Yayoi phase name constitutes a middle ground between scholars who would rather draw a more definitive line between Jomon and Yayoi lifeways and ceramic traditions.

The Yayoi period began with egalitarian agricultural villages practicing this newly imported subsistence technology alongside traditional Jomon hunting and gathering strategies—particularly, shellfish collection; but the period quickly

witnessed the development of chiefs, chiefdoms, fortified settlements, and warfare. A Chinese court document, the *Wei Zhi*, discusses the peoples of the Japanese archipelago in the mid-3rd century A.D. as comprising over 30 "countries," several of which were ruled by a legendary queen by the name of Himiko. Over a thousand years of historiography have gone into efforts to identify Himiko's queendom in the geography—and more recently, the archaeology—of Japan without clear results (cf. Edwards, 1996; Young, 1958). The historical debate has concentrated on whether her "country" called Yamatai was on the island of Kyushu in the west or in the Kinai region of central Honshu, particularly in the area of modern Nara. Two recent discoveries have attracted media attention to the Yamatai problem: Yoshinogari site in Saga prefecture (Kyushu) and the Kurozuka Tomb in Nara prefecture (Kinai). Looking back, Yayoi archaeology of the 1990s might well be termed the "Decade of Himiko."

The Yoshinogari site is a multicomponent site in western Kyushu (cf. Hudson and Barnes, 1991) that conforms architecturally to the "moated, palisaded settlement" described in the *Wei Zhi* as Himiko's capital. The discovery is important because it confirms that at least some of the settlement data in the *Wei Zhi* is accurate for Yayoi society of the mid-3rd century. The media's touting of Yoshinogari as Himiko's capital itself, however, is unsubstantiated. The site is probably one of a local chieftain, but it does show the layout, defenses, and development of a political center during the Yayoi period. Encouraged by the media hype, however, hundreds of thousands of visitors have visited the site especially to see the reconstruction of the large-pillared watchtower. It is the architectural structures that have received further confirmation through archaeological discoveries in the 1990s.

In 1992, a drawing of a two-story building on a potsherd was discovered at the Karako–Kagi site in Nara (Figs. 5 and 6). Interpretations of this drawing vary from a superb example of local architecture to a depiction of Chinese imperial architecture by Yayoi people who had visited continental cities. The former interpretation was strengthened in 1996 and 1997 when two layers of large buildings were uncovered at the Ikegami–Sone site in Osaka. As mentioned above in the dendrochronology section, the upper building at Ikegami–Sone was tree-ring dated to A.D. 52; it was oriented true north–south (NS, 19.2 m; EW, 6.9 m) with 60-cm-diameter pillars. Previously, such large embedded-pillar buildings (other than granaries) were not known until the 5th–6th centuries, nor directional orientations of buildings until the 8th century. The orientation of buildings to true north, common in China, might indicate the exposure to and adoption of Chinese astronomical valuations at this time, which would be consistent with the chronicled contact with the Chinese courts through tributary embassies.

These recent architectural data have shifted the focus of the Yamatai debate from Kyushu to Kinai; they were followed by a tomb discovery in late 1997 that again brought out the media in force, this time equating Yamatai with Kinai instead of Kyushu. Even the local township put up banners at the site reading "Himiko's Village, [come] to Yanagimoto." The Kurotsuka Tomb is a mounded tomb typical

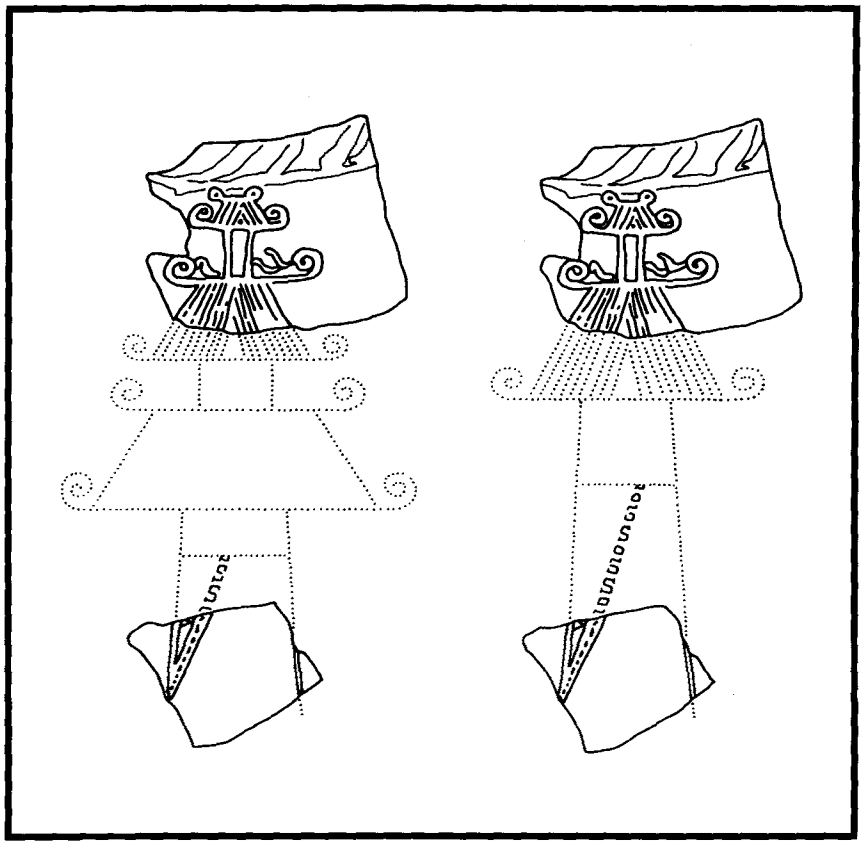


Fig. 5. Two imaginative reconstructions of a three-story (left) and a two-story (right) architectural structure as found partially sketched on Yayoi potsherds from the Karako–Kagi site in Nara (redrawn by Linda Bosveld, after *Mainichi Shinbun*, 1992).

of the early Kofun period (Edwards, 1998) and located in the large tomb cluster of Yanagimoto in southeastern Nara prefecture. As such, it is part of the debate that currently surrounds the definition of the beginning of the Kofun period, which is discussed below. Its importance to the Yamatai location debate derives from the fact that 33 triangular-rimmed bronze mirrors (*sankaku-buchi shinju-kyo*) were excavated from around the outside of the log coffin in the stone burial chamber.

This type of mirror is an enigma within Japanese archaeology; their technical excellence recalls Chinese technology and craftsmanship even though they are not known on the Chinese mainland. One hypothesis at present is that these mirrors were made in Japan by Chinese craftspeople. Others believe that these were the very mirrors referred to in the Chinese chronicles as having been bestowed on Himiko by the Chinese court (cf. Edwards, 1998). Their distribution is another

Fig. 6. The Karako–Kagi reconstruction of the Yayoi architectural sketch (photo courtesy of Y. Yoshizawa).

problem. Many mirrors are the products of the same molds, and the distribution of sister mirrors was postulated by Yukio Kobayashi (cf. Edwards, 1995) to reflect political relations. Kobayashi's case study was the Tsubai Otsukayama Tomb in the southern Kyoto basin, just north of Nara. The majority of triangular-rimmed mirror types had one example deposited in the Tsubai Otsukayama Tomb, leading Kobayashi to view the chieftain buried in that tomb as having control of production of the mirrors and distributing sister mirrors to cement political relations. This same argument is now being used for the mirrors in Kurotsuka Tomb.

Most archaeologists, including the present author Okita, now accept that Yamatai was probably located in Nara. However, Barnes would like to draw attention to the problem of nonequivalence between archaeological and historical data, with Yamatai and Himiko essentially being a historical problem. She points out that the settlement archaeology of Nara does not appear to embody a hierarchical social order, and the tombs, as they are now dated, do not coincide with the period of Himiko. Until these problems are sorted and reconciled with the expectation of a political hegemony in the Nara basin in the 3rd century, it is prudent to view Kurotsuka Tomb as the product of similar sociopolitical forces reflected in the Tsubai Otsukayama Tomb. It is possible to evaluate these forces in terms of chiefdom and state formation without applying historical labels that cannot be proved.

From Yayoi to Kofun

The word *kofun* means "old mound," and the Kofun period derives its name from the tradition of monumental tomb construction for the elites in the transition from chiefdom to state. When the period was defined many years ago, the practice of tomb building was thought to have appeared almost instantaneously in the early 4th century. Research in the late 1970s and 1980s, however, revealed mounded forms of burial existing in the Yayoi period prior to the fourth century (cf. Hudson, 1990). The distinction between the earlier and the later mounding practices was nevertheless maintained on the basis of the regionally diverse nature of Yayoi, chiefly "mound burials," in contrast to the homogeneous and ritually prescribed nature of Kofun "mounded tombs." The terms chosen to represent these groupings in English bear heavy significance for the social order and should be used exactly as indicated to maintain the distinctions.

A different challenge to the beginning of the mounded tomb culture has always existed in the *Wei Zhi* discussion of Queen Himiko's death, believed to have been in A.D. 248, when a large mound, 100 m in diameter, was erected over her grave (Edwards, 1996). Such a large mound would fit in well with Kofun-period practices, yet it is dated half a century too early for the conventional limits of the Kofun period. It was noted in the late 1970s by Barnes (Fig. 7) that the conventional dating of the Kofun period did not conform to other kinds of available data, which

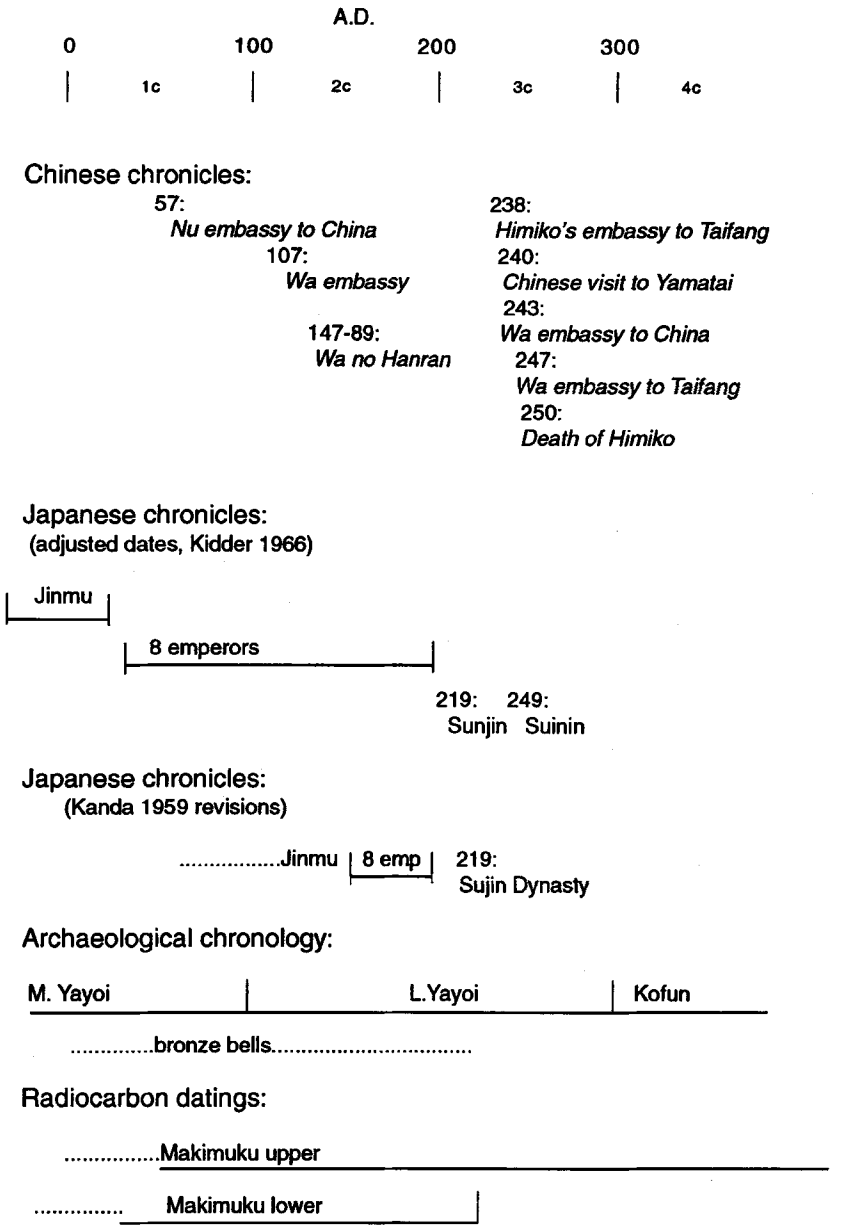


Fig. 7. A compilation of various dates for the beginning of the mounded tomb culture. Among these, the traditional archaeological chronology for the Kofun period beginning in A.D. 300 is obviously later than the documentation of Himiko's death and tomb construction (A.D. 250), the historical records for the beginning of the Sujin kingly line (A.D. 219), and the radiocarbon date for lower Makimuku pottery at the beginning of the Kofun period (80 B.C.–A.D. 240, calibrated) (redrawn by Yvonne Beadnell, after Barnes, 1988, pp. 198, 200).

all point to a midthird century beginning to the period. Supporting this change are five further observations.

1. Kinai (Late) Yayoi V pottery occurs with a 1st-century Chinese coin (Morioka, 1985).
2. The redating of Yayoi-IV style pottery to the 1st century B.C., as discussed above under Dendrochronology, leaves a Late Yayoi period (Kinai Yayoi V pottery) too long in span for comfort.
3. Kofun period mirrors with high-relief animal designs date to the late 3rd century, before the rise in popularity of triangular-rimmed mirrors in the 4th century (Okamura, 1992).
4. Based on a consideration of the age of the inscribed sword in Inariyama Tomb and other factors—especially that Sue-ware production dates from the late 4th or early 5th century, the appearance of this ware in Middle Kofun follows too closely after the onset of the Kofun period itself as traditionally dated to the early 4th century (Shiraishi, 1985).
5. The Makimuku 1 pottery recovered in 1996 from the oldest known key-hole tomb in Nara, Ishizuka Tomb, dates to the early 3rd century (Ishino, 1985).

The potential redating of the Kofun period brings to the fore a real problem in the historical data: the true relationship of Yamatai, the 3rd-century polity known from Chinese sources, and Yamato, the early Japanese state as known from the 8th-century Japanese chronicles. When Yamatai was thought to have been located in Kyushu, the geographical distance clearly gave conceptual separation to the two. If Yamatai is acknowledged to be in Nara, where the Yamato state developed, discerning where one ended and the other began becomes a problem. If the Kofun period is extended back to include the third century, then it becomes a serious problem whether Yamatai and Yamato are, in fact, two views of the same thing. These are the main problems facing Kofun-period and state-formation researchers, but another problem—that of multiple regional states—also crosses the border from Yayoi to Kofun.

Judging from the mythological repertoire of the early Yamato state, it has long been hypothesized that there might have been other early statelets besides Yamato in protohistoric Japan to match those on the Korean peninsula (Fig. 8). The bronze culture of the Yayoi period is now being brought in to argue this case, with the bronze caches interpreted as belonging to emerging regional elites. The discoveries in Shimane prefecture of a huge cache of 358 bronze thrusting swords at Kojindani site in 1984 (Anonymous, 1985) and of the largest bronze bell cache known, containing 39 bells, at the Kamo–Iwakura site in 1996, have brought this area of western Honshu into serious attention as a possible location of a contemporaneous statelet of Yamato. Separated by only 3 km and located in

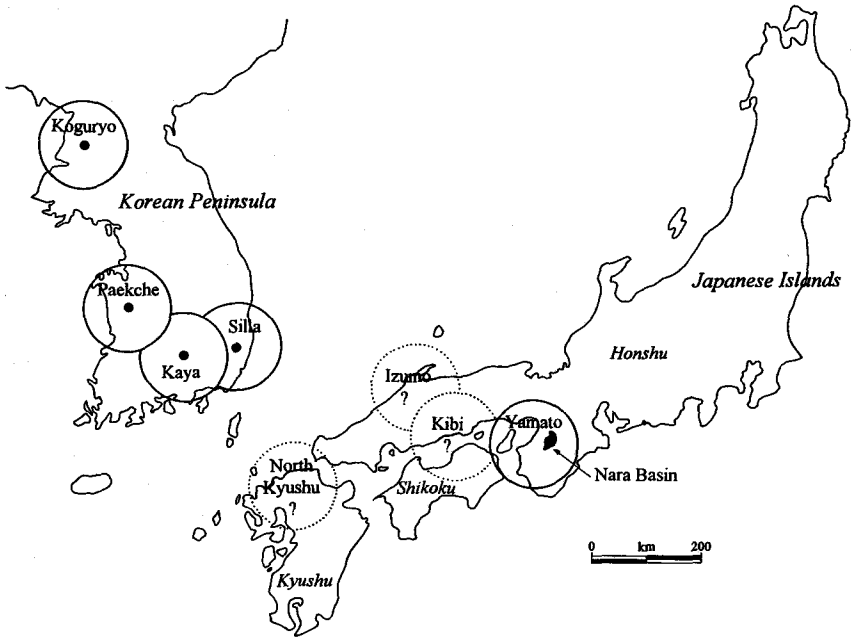


Fig. 8. Possible areas of early state formation in 4th- to 5th-century pen/insular East Asia (redrawn by Linda Bosveld, after Barnes, 1986, Fig. 6.7).

old Izumo province, these sites underwrite the hypothesis of Mori and Makabe of an "Izumo Kingdom" (*Yomiuri Shinbun*, 1996). One of the unearthed bells is of a type also found in Kobe City and in Nara prefecture, and Izumo is thought to have been inferior in status to Yamato within the incipient state hierarchy. However, the incorporation of Izumo myths into the Yamato pantheon shows a tremendous Izumo influence as well as a need for Yamato to recognize rather than excise that influence.

It has long been debated whether the bronze caches were temporary storage spots for valuable objects used in ceremonies. At the Shigetome site in Fukuoka, excavations in 1996 revealed a bronze halberd to have been unearthed six times and buried seven times altogether. However, at the Kamo–Iwakura cache it is clear that all 39 bells were buried only once. Hisao Kuwabara, a colleague of the present author Okita at Tenri University, interprets this behavior as an aspect of conspicuous consumption by Izumo elites—an idea that has never been applied to the Yayoi caches before but which ties in well with the period's increasing social stratification, in contrast to the previous interpretation that the bells were used in communal village rituals.

Table II. Protohistorical and Historical Periods of Japanese Archaeology

Dates	Period
	Protohistorical
0–300	Late Yayoi
300–710	Kofun
	Historical
710–794	Nara
794–1180	Heian
1180–1603	Medieval (Kamakura, Muromachi, and Momoyama)
1603–1868	Edo or Tokugawa
1969–1912	Meiji
1912–1925	Taisho
1925–1988	Showa

Historical Archaeology

Historical archaeology, by definition, deals with the time period of written history. Therefore, the introduction of writing to Japan from China can be viewed as the initial starting point of historical archaeological concerns, although the absence of full documentation contributes to the Kofun period being "protohistorical" in nature—as is the Late Yayoi period due to the presence of Chinese documentation (Table II). States such as Kaya and Paekche on the Korean peninsula are thought to have played an important role in the transmission to Yamato of writing as well as other courtly crafts and a model for controlled craft production. The immigration of Paekche scribes to the Yamato court in the 5th century resulted in Paekche scholars keeping the court histories that were later compiled into dynastic chronicles in the 8th century. These compilations, the *Kojiki* (720) and the *Nihon Shoki* (712), are our earliest extant documents written in Japan, but some inscribed archaeological material survives from the earlier period. The 5th-century bronze mirror belonging to the Suda Hachiman Shrine has been acknowledged as the earliest inscription made in Japan, but recently two excavations of artifacts that have markings interpreted as characters on them have challenged its status.

First, a Furu-type Early Kofun pot from Katabe site in Mie prefecture, dating from the 3rd–4th centuries, was interpreted as having the character for rice paddy inked diagonally at its upper rim (Fig. 9A); second, a slat of early 4th-century wooden armor from Yanagimachi in Kumamoto prefecture was said to have had a five-character inscription on it (Fig. 9B). Since the placement of characters on everyday objects and the meaning they might have held in that context are so totally obscure, and since they could equally well be stains that are read like Rorschach characters, the present authors are inclined to discount these examples as evidence for early writing. In our opinion, therefore, the earliest extant inscription that was

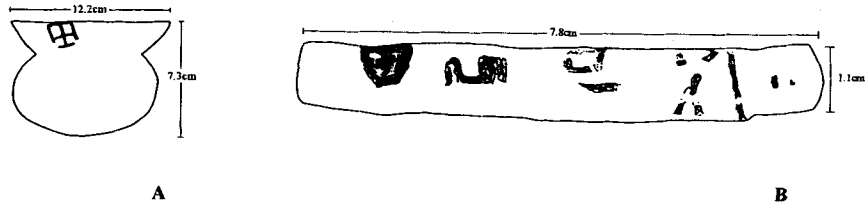


Fig. 9. (A) Stain said to resemble the character for a rice paddy field on the rim of an early 4th-century Haji jar from the Katabe site, Mie prefecture (redrawn by Linda Bosveld, after *Asahi Shinbun*, 1996). (B) Stains said to resemble writing on a wooden armor slat from the Yanagi-cho site, Kumamoto prefecture; the first stain on the left is again thought to be that of the character for rice paddy field (redrawn by Linda Bosveld, after *Asahi Shinbun*, 1997). The authors of this paper do not accept that these represent real writing; they interprete them instead as coincidental stains on the materials.

domestically produced in Japan is still the 5th-century inscription on the Suda Hachiman bronze mirror.

In the initial postwar decades, the span of archaeological research in Japan used to end chronologically with the early historic palace sites at Heijo (Nara, 8th century) and Heian (Kyoto, 9th–11th centuries). Tremendous resources are still being funneled into work on these periods. A new replica of the Suzakumon Gate of the Heijo Palace was opened in April 1998 and stands as a tribute to the ancient court society of the Nara basin (Fig. 10). Discoveries from Nara and Heian also continue apace, such as the excavated structures used to cast the Great Buddha of the Todaiji

Fig. 10. The newly constructed Suzakumon gate at the southern entrance to the Nara (Heijo) Palace site, built with traditional architectural methods and opened in April 1998 (photo courtesy of Nabunken).

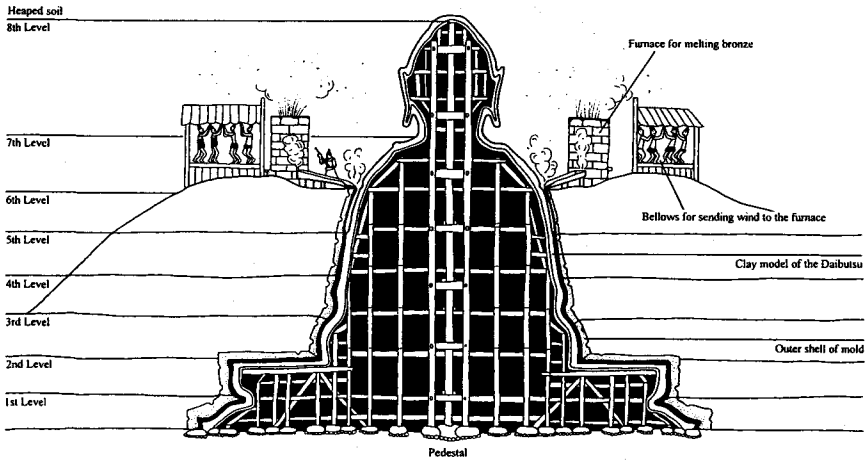


Fig. 11. A reconstructed drawing showing the wooden scaffolding for supporting the clay model of the Great Buddha of Todaiji during the bronze casting process. The illustration shows the bronze poured to the sixth level from temporary furnaces on the built-up ground surface. To finish the sculpture, the ground was heaped up to the top of the Buddha's head (eighth level). Remnants of the casting structure were found in excavations in Nara (redrawn by Linda Bosveld, after Nakai, 1996, p. 3).

Temple in the 8th century (Fig. 11). It was a great feat of civil engineering of the time, and the bronze statue can still be viewed today in the Todaiji main hall, the largest wooden structure in the world, built specifically to house the Great Buddha.

The further development of Medieval archaeology, and now Edo and Showa archaeology, has extended the discipline's remit up to the present day. Themes in historic archaeology range from urbanization problems (Maekawa, 1991) to center–periphery relations (Uno, 1991); major excavation targets comprise castle towns, warlord retreats, and samurai estates. Digging in old Edo has raised many methodological problems, including dealing with the vast amount and range of material produced by a cash economy and an extensive distribution system (Ogiura, 1993; Wilson, 1997, p. 5). The material culture of Edo is gaining public recognition through the new Edo–Tokyo Museum in Tokyo, opened in 1993, where full-scale replicas of old buildings inside the museum provide a monumental backdrop to portraying the urban and rural items of use in the Edo economy. These developments indicate a greater need for archaeologists to cooperate with historians in the study of these periods, in contrast to protohistory—where archaeologists and historians tend to work quite separately.

POLITICS AND POLICIES

Publicizing New Discoveries

Every year now, the Agency for Cultural Affairs (Bunkacho) mounts an exhibition of new archaeological discoveries from throughout the country. The "year"

in question is the fiscal year from April through March, corresponding to the budget schedule of rescue archaeology. With reports due in at the end of March, the next few months are devoted to assembling the outstanding finds and preparing the exhibitions. Beginning in June, the exhibition then travels around the country; in 1996–1997 the venues included the Tokyo National Museum, Tohoku Historical Museum, Gunma Prefectural History Museum, Kochi Prefectural Folk Museum, Hiroshima Prefecture Historical Folk Materials Museum, Oita Prefectural Arts Hall, Shiga Prefectural Ando Castle Archaeological Museum, and Yamanashi Prefectural Archaeological Museum. The exhibited finds included incised chestnuts from the Ikeuchi site in Akita, obsidian blades from Shirataki site in Hokkaido, a ceramic imitation of a conch shell decorated in the manner of Jomon pottery from Chikanai Nakamura site in Iwate, a painted *haniwa* house sculpture from Tsuchiyama Tomb in Tochigi, glass beads from the Okawa site in Hokkaido, and a plaque figurine from Eriana site in Nagano. It is notable that the finds are not necessarily exhibited in the prefecture of their discovery, thus homogenizing people's knowledge about what is happening in general in Japanese archaeology throughout the islands.

These exhibitions are a new governmental initiative to take archaeology to the people and break away from the local nature of rescue archaeology. Needless to say, the focus is on objects and their technical excellence or rarity. But if these exhibitions serve to generate interest among the public, leading them to investigate more deeply their own local prehistory, then the purpose of the exhibitions will have been served. In addition to the Bunkacho annual exhibition, at least one mass media publication devotes itself at the calendar year's end to reviewing the special discoveries. This is the *Weekly Asahigraph*, published by the Asahi newspaper, with the late December issue entitled *Kodaishi Hakkutsu Somakuri* (Wrap-up of Ancient History Excavations). Accompanied by full color photographs of both objects and excavations, this publication reaches the parts of the country that the exhibition does not. The *Weekly Asahigraph* republishes these year-end wrap-ups every 5 years in "new site catalogs" entitled *Nihon no Hakkutsu* (Japanese Excavations), the most recent being volume 4 and including finds from 1991–1995; instructions for ordering are available at http://opendoors.asahi-np.co.jp/.

Investigating the Imperial Tombs

It has long been the policy of the Imperial Household Agency (IHA or Kunaisho) to deny archaeologists access to the imperial tombs, even though many scholars believe they hold the key to understanding the formation of Japan's earliest state, Yamato. The imperial tombs were established as such at the end of the Tokugawa period (in the 1860s), mainly by correlating the tomb descriptions of deceased emperors as recorded in the 8th- to 9th-century chronicles with the largest surviving tomb in the said location. Needless to say, this method allowed for some

inaccuracies and many assumptions; only 2 of the 240-odd imperial tombs have been proved as such. A consortium of 15 scholarly societies (archaeologists and historians) has been lobbying the IHA for years to be given greater access to the imperial tombs. Finally, on November 25, 1995, for the first time ever, consortium representatives were allowed to walk on the mound of the Seimu Mausoleum in northwest Nara after having inspected the Kunaisho's work on marginal drainage excavations.

The Mise–Maruyama Tomb in Nara is the sixth largest keyhole tomb in the country and is protected as an imperial tomb. In early 1991, a child entered a hole in the mound and then fetched his father to take photographs of what he had seen. The photos were released to the local media, and the Japanese people got their first glimpse within an imperial tomb. A scholarly committee determined that the tomb, which has the largest known stone chamber with two stone sarcophagi within, is most likely the resting place of Kinmei and his empress (Inokuma, 1992). This contradicts the IHA's maintenance of the tradition that the Kinmei mausoleum is far to the northwest of Mise–Maruyama, thus illustrating the potential role of scholars in challenging current or traditional Japanese historical interpretation by investigating the imperial tombs.

A different argument involves the Nishitono-zuka Tomb in Nara, which is accepted by the IHA as belonging to the early 6th-century Emperor Keitai's consort. Since it is an Early Kofun (4th-century) keyhole tomb, archaeologists had been trying for years to impress upon the IHA that the historic attribution was unsupported. In 1993, IHA excavations uncovered a very unusually shaped jar-stand type *haniwa* dating to the 4th century at the mound's base; the date of these *haniwa* is now recognized by the IHA and challenges the historic dating.

Archaeologists hold different opinions as to exactly what can be clarified by archaeological investigation of imperial tombs. One of the present authors (Okita) believes that even if archaeologists were permitted to excavate the Nintoku Mausoleum in Osaka, for example, they are unlikely to be able to prove that it was Nintoku's or even that such a person really existed. The other author (Barnes) further believes that excavation of imperial mausolea is not going to reveal much more revolutionary information than already known—especially regarding relations with the Korean peninsula, a particularly sensitive topic. Thus, the campaign to have the imperial tombs opened to scientific investigation must be tempered by the pursual of other informative avenues of enquiry into Kofun-period culture and Yamato politics.

Human Population Research

The formation of the Japanese population is a politically sensitive topic that has attracted significant research interest in the 1990s in terms of genetic heritage, regional traits, and language identity (e.g., Hanihara, 1991; Hudson, 1994; Miller,

1990). The International Research Center for Japanese Studies (Nichibunken) in Kyoto is becoming a focus for archaeological research as eminent scholars take up 3-year appointments or spend sabbaticals there. Takeru Akazawa from the University of Tokyo Museum, Yoshinori Yasuda from Hiroshima University, and Masakazu Yoshizaki from Sapporo University are recent/current examples. In 1995–1996 a research project was mounted on "Regionality of the Japanese and Japanese Culture," and beginning in 1997 a second interdisciplinary project involving more than 70 researchers from many fields seeks to clarify how the Japanese race and Japanese culture were formed. Keiichi Omoto, Professor of Physical Anthropology at Nichibunken, coordinates investigations into the natural environment, anthropology, archaeology, and Japanese culture. Importance is placed on empirical proof from surveys including excavations, practical experiments, and documentary research throughout Asia; these are carried out with the goal of formulating theories regarding the Japanese race and Japanese culture.

Selective Preservation

In October 1994, a Committee for Research and Study on Rescue Archaeology was established at CAO, Nabunken, at a gathering attended by prefectural officials and staff dealing with rescue archaeology. The remit of the committee was to standardize and rationalize the finds of rescue excavations, which then totaled 4.6 million cases (each case measuring ca. 15 × 40 × 60 cm) of artifacts stored by prefectural governments, with 300,000 cases being added annually. A report on "The Management of Artifacts," produced by this Committee and the Agency for Cultural Affairs in February 1997, contained revolutionary recommendations. In contrast to the current practice of saving 100% of all excavated material, each prefecture is now being asked to determine its own standards for selective preservation on grounds of artifact variety, period, region, site type, site importance, excavated conditions, uniqueness, excavated quantity, degree and nature of preservation, potential as designated cultural properties, size and ease of transport or storage, and future usefulness. For example, in the case of ecofacts, if there are abundant materials to bear testimony to the palaeoenvironment, then materials that are not humanly worked may be sampled and the residue discarded. The document gives a general classification into human remains, tools, raw materials, manufacturing debris, architectural materials both worked and unworked, and food remains or by-products.

Given the mountains of data being created by continuous and continuing rescue archaeology in Japan, as the Cultural Properties Law applies to both state and private land *in toto*, some negotiations over storage capacity are inevitable. The interesting aspect, however, is the way this is being done in Japan—by bureaucratic measures and declarations rather than by sampling strategies at the excavation level. Excavated areas in rescue situations are determined by the needs of the developer;

once the area of construction has been specified, it is excavated 100%. Experiences of the present authors have revealed how socially difficult it is to devise a sampling of the area when the expectation is excavation in entirety (Barnes and Okita, 1980). The continued reluctance, 20 years later, to introduce sampling highlights the Japanese archaeologists' ongoing discomfort with statistics despite the trend towards scientific archaeology. Though storage problems may be alleviated with the system to be introduced, we expect the demands on archaeologists' time to increase dramatically in working out acceptable limits for each criterion and in justifying decisions to discard.

Archaeological Theory

Japanese archaeology has frequently attracted criticism from outside on the grounds that it is not "theoretical." Such attacks are inaccurate, as Tsude (1995) notes in carefully identifying strands of Marxist, cultural materialist, evolutionary, processual, and annaliste analyses in Japan. The present author (Okita), moreover, notes that during the war years Shinto ideology directly utilized archaeological features and artifacts in attempting to prove the divinity of the Emperor. What is characteristic, however, is that none of these overarching theoretical frameworks has become the dominant and long-lasting paradigm for interpretation. Mizoguchi shows how Marxist archaeology—led by Kondo Yoshiro of Okayama University and once supported by Tsude himself—was once a "strong theoretical, therefore discursive, framework" (1996, p. 5) until its dissolution in the general "demise of grand narratives in the late 20th century" (Mizoguchi, 1996, p. 8).

Okita makes the point that in the immediate postwar period, the Japanese were absorbed by discussions of the "Akashi hominid,"[5] the "Horserider Theory,"[6] and the Toro excavations[7]—all of which brought into question the "roots" of the Japanese culture, state, and people. These issues were written into school textbooks, inspiring the Japanese to join in the search for their own roots. Their continuing interest is evident in the numbers of visitors attending site open days and in attendance at public symposia on archaeological discoveries—usually hosted by a prominent newspaper company. With the pricking of the imperial myth and the rise of the importance and significance of the common people of prehistory, the Japanese have taken the Jomon and Yayoi peoples into their hearts and lineages. This tendency is also apparent in Britain, Okita noted during his visit, where newspaper treatment of the archaeological discoveries of the "Cheddar people" and Roman finds are welcomed equally by the media and citizenry. The demand

[5]Fossilized bones attributed to the Pleistocene from a poorly documented site in Akashi, near Kobe city.

[6]The postwar thesis that mounted warriors from the continent had conquered Kofun-period Japan and established the first state in the fifth century (see Egami, 1964; Ledyard, 1975).

[7]A Late Yayoi site near Shizuoka city that was excavated by the first multidisciplinary team and revealed the substance of agricultural village life of the period.

for and consumption of cultural historical reproductions are an important source of archaeological support and rationale for the immense expenditures in this area, not only in today's Japan but in other countries as well.

On the professional side, Mizoguchi argues that what has replaced overarching theory is a strong sense of localism, inculcated by the local concerns of rescue archaeology and the support structure of local government that employs the majority of archaeologists. These structural constraints have been made ideologically explicit through the central government's promotion of *furusato-zukuri* (hometown-making) and *chiho no jidai* (the era of the "region") [cf. anthropological works such as those by Robertson (1991) and Hughes (1999)]. Mizoguchi characterizes Japanese rescue archaeologists as "oscillating between . . . two 'social persona' [*sic*], the ruthless manager and the knowledgeable archaeologist," and he identifies the resolution of tension between these personae as concentrating "on every-day details and keep[ing] oneself away from thinking about wider and 'abstract' issues . . ." (1996, p. 10). Hosoya further emphasizes that "the character of Japanese archaeology is not a simple 'theory-less' archaeology . . . but a product of completely different cultural structure" (1996, unpaginated); she identifies as the two kingpins of archaeological interpretation in Japan (1) an equalized treatment of all archaeological data, without "distinction or qualification," and (2) a reliance on demonstration over explanation in reconstructing ancient culture. Okita expands this view to add that the Japanese still think of themselves as one people with a pluralistic religion. With many sources of myths, principles, values, and goals, there is no native search for a single "truth." Thus, the employment of theory in search of past reality is an alien activity that does not sit well with the more natural Japanese penchant for toleration of multiple sources of legitimate interpretation.

One may take issue with these statements, but the published works of Tsude, Mizoguchi, and Hosoya in the mid-1990s signify a possible new trend: that of the explicit discussion of theoretical archaeology in Japan. Whereas past researchers simply tried to introduce the different theoretical frameworks listed above in their own work, now the position of theory in Japanese archaeology is beginning to be actively debated. One important aspect of both of these phenomena, however, is that invariably those who have tried to introduce various theories or discussions of theory into Japanese archaeology have spent a period abroad. Thus, it is almost unavoidable to view the whole topic of archaeological theory in Japan as a foreign-derived concern.

Western archaeologists, in particular, should be aware of this form of cultural imperialism and acknowledge the validity of the kinds of cultural reconstruction that can be achieved without slavish application of one faddish theory or another. There is no doubt that the Japanese are the largest producers *and* consumers of archaeological data in the world today. That those activities are unconstrained by citation index rankings and research assessment exercises is possibly one reason why there is such a close relationship between the archaeological community and

the public in Japan, and why the reconstruction of past societies and lifeways in cultural historical terms can provide a successful milieu in which to practice archaeology without named academic theories. As Hosoya said, "[It's] a completely different cultural structure."

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